Environmental & Land Use Law Center, Inc.

Shepard Broad Law Center · Nova Southeastern University
3305 College Avenue · Ft. Lauderdale, Florida 33314
Phone (954) 262-6140 · Fax (954) 262-3992

Treasure Coast Office
224 Datura Street, Suite 201
West Palm Beach, Florida 33401
Phone: (561) 653-0040
Fax: (561) 653-0041

Martin County Office
2336 SE Ocean Blvd. PMP 110
Stuart, Florida 34996
Phone: (561) 463-9598
Fax: (561) 288-2261

A tax exempt Florida not-for-profit corporation pursuant to Section 501(c)(3) of the Internal Revenue Code.
Dedicated to representing the public interest in environmental and land use matters.

PLEASE REPLY TO: Treasure Coast Office

November 13, 2002

Mr. John Zahina
South Florida Water Management District
3301 Gun Club Road
West Palm Beach, FL 33408

RE: Loxahatchee MFL comments

Dear John,

Let me first apologize for the delay in providing you with these written comments on the draft technical criteria for the establishment of a minimum flow and level for the Loxahatchee River, submitted on behalf of the Florida Wildlife Federation, the Sierra Club Loxahatchee Group, and the Martin County Conservation Alliance. I am confident, however, that the issues raised in these comments will not be new to you, as we have voiced the majority of these concerns at numerous public meetings on the subject. While these comments are directed to the July 2002 draft technical criteria, I believe many of the issues here raised will also apply to the soon to be released November draft technical criteria. I understand that release of the November draft is imminent, and so as not to delay your process, I would ask that you keep these comments in mind when considering revisions to that document. Likewise, we will supplement or revise these comments in response to our review of the November draft technical criteria.

Our primary concerns at this point relate to the extremely short timeframe (less than 1 month) proposed for the rule development process. Given the highly complex nature of an MFL rule and the significant public interest in protecting and enhancing the Loxahatchee River, it would appear that additional time for stakeholder analysis of the revised technical criteria would be warranted.

We are additionally concerned that the proposed MFL exceedence and violation criteria and return frequency are not sufficient to protect the river from significant harm. As currently worded, the proposed MFL criteria would allow repetitive or long term low flow or zero flow events, the effects of which have not been analyzed in the technical criteria. We recommend revising the exceedence and violation criteria to prevent such an outcome.

We are unconvinced that 1985 represents an appropriate baseline condition for establishment of the MFL. The state's interest in protecting and restoring the Loxahatchee was evident well before 1985, and numerous scientific studies from that time document the damage that had already been caused by reduction of flows to the river. We urge the District to select an earlier baseline which more accurately reflects the longstanding state and federal interest in protecting and enhancing the historical conditions of the river and watershed.

It is also disappointing to see that MFL's have not been established for the Loxahatchee Slough, or for any of the tributaries to the Northwest Fork. Failure to establish tributary MFL's will allow significant harm to continue to occur on the River, particularly to the currently healthy cypress swamp existing at Kitching Creek.

Finally, we believe it is critical that the MFL, once established, be reviewed earlier than in 5 years. We recommend that the District commit to reviewing the MFL by no later than 2004, concurrent with the proposed schedule for establishment of an initial reservation to protect existing water for the protection of fish and wildlife and with the scheduled completion of the Northern Palm Beach County Project Implementation Report.

Thank you for consideration of our comments. As always, we are available to meet with District staff to address these concerns in greater detail.

Sincerely,

Lisa Interlandi

cc: Henry Dean, SFWMD
Dave Swift, SFWMD
Joel VanArnum, SFWMD
Ken Ammon, SFWMD
Scott Burns, SFWMD
Cecile Ross, SFWMD
Melissa Meeker, FDEP
David Struhs, FDEP
Manley Fuller, FWF
Kay Gates, Lox Sierra
Donna Melzer, MCCA
Nathaniel P. Reed

The Environmental & Land Use Law Center submits the following comments on behalf of the Florida Wildlife Federation, the Sierra Club Loxahatchee Group, and the Martin County Conservation Alliance regarding the July Draft Loxahatchee River MFL Technical document and proposed rule. These comments are preliminary in nature, and will be revised and / or supplemented as rule development proceeds.

TIMING FOR RULE DEVELOPMENT PROCESS

Our initial concern is that the proposed rule development schedule is extremely aggressive, and does not provide sufficient opportunity for public input, does not allow sufficient time for stakeholder review between mail out of the final draft MFL technical document (November 15th) and rule development workshops (November 19th and 25th) and final Governing Board approval (December).

Recommendation: Revise rule development schedule to allow sufficient time for stakeholder review of final draft rule prior to rule development workshops. Increase opportunities for public participation in rule development by scheduling an at least one additional full day public workshop on the proposed rule.

MFL CRITERIA AND RETURN FREQUENCY

Under the proposed rule, an MFL violation occurs within the Northwest Fork of the Loxahatchee River when an exceedance occurs more than once every six years. An "exceedance" is defined as when flows to the Northwest Fork of the river as measured over Lainhart Dam decline below 35 cfs for more than 20 consecutive days within any given calendar year.

The proposed definition of "exceedance" is loosely worded and as drafted is insufficient to prevent significant harm. While not suggesting that the District would employ such an operational strategy, as an example, the proposed rule would allow unlimited cycling of 19 days of less than 35 cfs (or even zero flow), followed by 1 day of 35 cfs, without ever triggering an exceedance, which would result in a substantial reduction in overall flows to the River.

While such an example appears somewhat extreme and unlikely, less extreme examples would be more likely to occur, but were not analyzed by the technical criteria and could be equally damaging to the river.

Also, due to the 1 in 6 years return frequency, once an exceedance (< 35 cfs for >20 days) has occurred, lower than 35 cfs flows could continue consecutively for up to 1 year without triggering an MFL violation.

The technical criteria fails to analyze the impact that numerous, repetitive, or long term low flow or zero flow events, as would be allowed under the proposed technical criteria, could have on the river.

Additionally, by establishing a single numerical minimum flow, the proposed MFL fails to account for natural seasonal fluctuations in water flows or levels, as required by Rule 62-40.473 F.A.C. which states:

> *"(1) In establishing minimum flows and levels pursuant to Section 373.042, consideration shall be given to the protection of water resources, natural seasonal fluctuations in water flows or levels, and environmental values associated with coastal, estuarine, aquatic, and wetlands ecology. . ."*

Page 68 of the technical criteria acknowledges that "Protection of this resource requires reducing or reversing the current trend of saltwater intrusion and mangrove invasion within the upstream freshwater portion of the river by maintaining minimum baseline freshwater flows to the Northwest Fork." This statement appears to be contradicted by the proposed MFL of 35 cfs. The MFL as proposed does not reduce or reverse the damage that has been caused by decades of neglect and oversight.

The proposed MFL appears to adopt the strategy of maintaining the status quo, although due to the problems with the return frequency, definition of exceedance, etc. detailed above, it is unlikely that the proposed MFL would in fact maintain the status quo, as it would appear to allow a significant reduction in current flows.

As has been suggested by FDEP staff, if the status quo is to be maintained, current flow conditions cannot be allowed to deteriorate --an MFL to protect the status quo should include a range of flow requirements similar to those in Table 40 on page 145 and include flows from page 139. Flows at Lainhart Dam should average 50 cfs annually, not fall below 35 cfs for more than 40 days once a year, fall to 20 cfs once every 1.67 years and for no more than 30 days, fall to 10 cfs every 6 years and for no more than 20 days, and fall to 5 cfs for no more than 13 days once every 30 years, and never fall below 5 cfs. Such an MFL could best be administered by developing a rainfall formula to meet its requirements.

We, however, disagree that a strategy of maintaining the status quo is appropriate for establishment of an MFL for the Loxahatchee River, as we believe such an approach would conflict with the non-degradation and enhancement policy expressed by the Federal Wild and Scenic River's act, which requires that Wild and Scenic Rivers be managed to protect and enhance the values for which the River was designated, and accordingly we recommend establishment of an MFL that promotes some level (even if limited) of river restoration.

Furthermore, the consent decree between Florida Wildlife Federation and the District requires the District to provide a minimum flow of 50 cfs "when available". There would appear to be some conflict between an MFL of 35 cfs and an accompanying recovery strategy and fulfillment of the District's obligations under this consent decree. More explanation is needed on how the District will define the phrase "when available", and how this requirement will be implemented in the future. For instance, would the District grant a consumptive use permit if the permit was consistent with the 35 cfs recovery strategy, but

would reduce the frequency that 50 cfs is "available" under the terms of the consent decree?

Recommendation: Analyze impact that repetitive or long term low flow or zero flow events could have and revise MFL exceedence / violation definition or return frequency accordingly; or revise MFL exceedence / violation definition and return frequency to prevent repetitive or long term low or zero flow events.

Recommendation: Revise MFL to encompass a flow regime with natural seasonal fluctuations in water flows or levels, as required by Rule 62-40.473 F.A.C.

Recommendation: Provide further explanation about the District's obligations under the Florida Wildlife Federation consent decree and about how these obligations will be fulfilled in application of the recovery strategy and in future permitting decisions.

USE OF 1985 BASE CONDITION

Throughout the document, and particularly on P. 130, the draft technical criteria states that SFWMD staff selected the condition of the river in 1985 as the baseline or reference point for establishing the MFL. The document states that 1985 was chosen as the base condition because the Wild and Scenic River Management Plan (SFWMD, 2002) recognized the values of the river at that time and identified the need to protect and enhance these resources.

Choosing 1985 as the MFL base condition appears somewhat arbitrary, as in 1985 it had long been recognized that the Loxahatchee River was seriously threatened by reduced flows, and the need to increase flows to enhance the river condition was well documented. The Federal Wild and Scenic River's act, itself states a non-degradation and enhancement policy, which requires that each wild and scenic river be managed to protect and <u>enhance</u> the values for which the river was designated. Additionally, in 1983 the District was given the rulemaking authority and direction by the legislature to establish a Loxahatchee River rule to regulate activities in the watershed which could have an adverse effect on river resources. Such a rule was never adopted, while the River's condition has continued to deteriorate.

Concerned citizens, environmental advocates, and governmental agencies have called for the restoration of flows to the Northwest Fork of the Loxahatchee River for at least the last three decades. Similarly, it was decades ago that the SFWMD was given the responsibility to establish a MFL for the river. While over the last 30 years no MFL has been established, damaging low flows have persisted while over-drainage and development have continued unabated, further degrading the river and its cypress swamp community.

Numerous large scale studies were conducted on the river in the early 1970's, including the 1973 United States Geologic Survey hydrologic study, which concluded that the primary cause of environmental problems facing the river was the upstream movement of salt water which had caused changes in the flora and fauna of Jonathon Dickinson State Park. The report found that land

development, canal construction, and water control practices allowed salt water to encroach upstream, and determined that a minimum of 50 c.f.s. would be required to retard further upstream movement of salt water under the drainage and development conditions that existed at the time of the study. See 1985 Management Plan, p. 21.

The state recognized the river's importance and need for protection as early at 1970 by designation of the Loxahatchee River–Lake Worth Creek Aquatic Preserve by the Governor and Cabinet, sitting as the Board of Trustees of the Internal Improvement Trust Fund. In 1975, the Legislature passed the "Florida Aquatic Preserve Act" (Chapter 258, Fla. Stat.) which directs that " submerged lands in areas which have exceptional biological, aesthetic, and scientific value, as hereinafter described, be set aside forever as aquatic preserves or sanctuaries for the benefit of future generations." The intent of the State, through the Trustees and the Legislature, to protect, preserve, and enhance the condition of the Loxahatchee River has been evident since at least the early 1970's.
Even the 1985 Management Plan, which the technical criteria relies upon in setting the 1985 baseline, recognized that the river was in jeopardy due to low flows, and therefore increasing minimum flows was a principle goal of the plan. "Clean fresh water of sufficient quantity and periodicity is essential in maintaining the area's scenic qualities and diverse native plant communities and wildlife populations. Man-made alterations to the river's natural drainage patterns have reduced the quantity and quality of water in river, and these changes have contributed to the corresponding declines in the river's natural and scenic qualities." 1985 Management Plan, p. 14.

A principle goal of the plan, insofar as the management of the river's water resources is concerned, is to, "increase minimum flows to the river as much as possible in order to effect the greatest possible downstream movement of the saltwater wedge during dry conditions". 1985 Management Plan, p. 100.

Additionally, Section 373.042(1) Fla. Stat. requires the District to consider, and at its discretion provide for, the protection of non-consumptive uses in the establishment of minimum flows and levels. This provision should be utilized to ensure sufficient flows for the protection and enhancement of Jonathon Dickinson State Park, the Loxahatchee River – Lake Worth Creek Aquatic Preserve, and for the protection and enhancement of the wild and scenic river values.

Recommendation: Revise baseline condition for the protected resource functions of the Loxahatchee River and estuary to an earlier date which more accurately represents the longstanding state and federal interest in protecting and enhancing the historical conditions of the river and watershed.

Recommendation: Revise MFL to provide for the protection of non-consumptive uses pursuant to Section 373.042(1) Fla. Stat., including amounts of water necessary for the protection and enhancement of the wild and scenic values of the Loxahatchee River, and protection and enhancement of Jonathon Dickinson State Park, and the Loxahatchee River–Lake Worth Creek Aquatic Preserve. These non-consumptive uses are critical for the protection of public lands and for

Florida State Parks and should be protected by the MFL due to the immense public benefit these resources provide.

CONSUMPTIVE USES

The technical criteria asserts throughout that , "...water use within the watershed does not hydrologically influence the flows in the Loxahatchee River...". Conversely, the document also acknowledges the inability to calculate the impact of consumptive use and states that "professional judgment" indicates dry season impacts to the river could be in the range of 5 cfs.

From a lay perspective, 5 cfs does not appear to be a reasonable estimate of consumptive use impacts on the river, particularly given the extensive development and numerous wellfields in and adjacent to the Loxahatchee River basin and the acknowledged uncertainties in the model and the inability of the model to link surface water and ground water flows. It was also troubling to see on page 81 that consumptive use permitting records which are necessary to determine actual dry season pumpage were examined and "many of the data records were missing or incomplete."

Assuming 5 cfs is an accurate estimate, the technical criteria inappropriately minimizes the significance of such an impact. 5 cfs is 15% of a 35 cfs MFL, which could, in fact, be significant.

The document acknowledges on p. 63 that "...very little allocable water remains from the surficial aquifer within the watershed." It is concerning that the district considers <u>any</u> water available for allocation in the watershed, when there is no clear answer as to how consumptive uses have impacted dry season flows to the river. The lack of allocable surficial aquifer water in the watershed calls for the district to refrain from issuing or renewing consumptive use permits from the surficial aquifer within the Loxahatchee watershed until alternative water resources are available.

Recommendation: Conduct a more thorough analysis of the impacts of consumptive use on flows to the river. Expedite development of integrated surface and groundwater model and to better understand impacts to the river.

Recommendation: Refrain from issuing or renewing consumptive use permits which draw from the surficial aquifer within the Loxahatchee watershed.

Recommendation: Internally audit or otherwise ensure that consumptive use pumpage records are timely submitted, complete, and available for public review.

LOXAHATCHEE SLOUGH AND ESTUARY

The MFL technical criteria does not address minimum flows or levels for the Loxahatchee Slough or the Loxahatchee Estuary. Will MFL's be established for these waterbodies, and if so, when? The document is entitled Minimum Flows and Levels for the Loxahatchee River and Estuary, however no description of the desired estuarine conditions is included. More analysis and explanation is

needed on considerations such as the desired extent and location of sea grasses and the associated freshwater flow regime, the conditions needed to support a healthy reproducing oyster population, and flows needed for the maintenance of a healthy estuarine fish population.

It would seem most appropriate to address the water needs of the Loxahatchee Slough, River, and Estuary comprehensively or at least concurrently to ensure that all components of the natural system maintain necessary levels and flows so that they can begin to function properly together.

Recommendation: Set timeframe to establish MFL for Loxahatchee Slough.

Recommendation: Revise MFL document to more thoroughly address desired conditions for Loxahatchee Estuary and flow necessary to achieve those conditions.

TRIBUTARIES

Tributary inflows to the northwest fork account for nearly 50% of the River's inflow, yet the proposed MFL only measures inflow from one point (Lainhart) -- no MFLs are proposed for any of the River's additionally tributaries: Cypress Creek (26-32%), Kitching Creek (11-13%) or Hobe Grove Ditch (5%).

Due to a lack of data, the MFL model assumes tributary inflows to be a constant fraction of the discharge at Lainhart dam. This does not appear to be a safe assumption. Because the tributaries were excluded from MFL development, it may not be reasonable to assume that these flows will remain constant, particularly because the tributaries are virtually ignored in the proposed recovery strategy. The proposed MFL in no way ensures that these flows will not reduced or diverted by development or otherwise.

Failure to properly address tributary inflows is particularly concerning for Kitching Creek, which still contains large areas of healthy cypress forest. An MFL which only protects areas upstream of River mile 9.2 and does not require any minimum tributary inflow from Kitching Creek will allow significant harm to occur to the healthy floodplain swamp community at Kitching Creek.

Additionally, with the District currently in the process of acquiring vast portions of Cypress Creek, it would appear feasible and prudent to include restoration of flows from Cypress Creek, and other tributaries, as part of the overall MFL Recovery Strategy.

Recommendation: Revise MFL to establish minimum flows for each of the river's tributaries.

Recommendation: Include restoration of tributary inflows as part of the MFL Recovery Strategy.

Recommendation: Revise MFL to ensure protection of healthy cypress floodplain swamp community at Kitching Creek.

VEGETATION SURVEY

On P. 132, the document states that based on comparisons of vegetation community descriptions from 1985 and 2002, it can be inferred that there has been little change in the distribution of freshwater and salt tolerant vegetation since the mid- 1980's. Existing canopy vegetative communities have been analyzed from aerial photographs from 1940, 1985, and 1995. However, the aerial coverage comparison was not brought up to date, which should be done to support the inference that there have been no significant vegetation change between 1984 and 2002 .

Recommendation: Update vegetation survey from 2002 aerial photograph.

REVIEW OF MFL

Due to a current lack of data, uncertainties in the model, and ongoing studies and efforts to identify a restoration target, the proposed MFL, once established should be reviewed sooner than 5 years.

Recommendation: Review MFL in 2 years or after completion of joint DEP / SFWMD restoration target studies, to ensure MFL is appropriate in light of revised restoration target.